

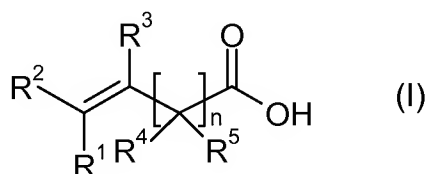
**AMENDMENT TO THE CLAIMS:**

The following claim set replaces all prior versions, and listings, of claims in the application:

1.-37. (Cancelled)

38. (Currently Amended) A passivating layer on a metal surface, obtained by contacting the metal surface with a composition comprising a copolymer as component A, synthesized from

- aa) 50 to 99.9% by weight of (meth)acrylic acid or salts thereof as component Aa;
- ab1) 0.1 to 50% by weight of a carboxylate-containing monomer of the formula I



in which the symbols have the following definitions:

n is 0 to 10,

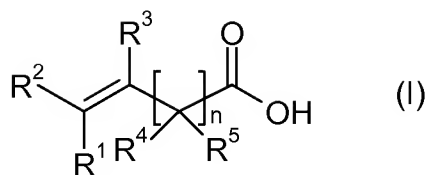
R<sup>1</sup>, R<sup>2</sup>, and R<sup>3</sup> independently of one another are hydrogen, C<sub>1</sub> to C<sub>18</sub> alkyl, which is branched or unbranched, C<sub>3</sub> to C<sub>6</sub> cycloalkyl, C<sub>2</sub> to C<sub>18</sub> alkenyl, which is branched or unbranched, C<sub>3</sub> to C<sub>6</sub> cycloalkenyl, C<sub>6</sub> to C<sub>12</sub> aryl, which is unsubstituted or substituted by alkyl substituents or aryl substituents, R<sup>1</sup>, R<sup>2</sup> and/or R<sup>3</sup> are optionally substituted by at least one carboxyl group, or are a carboxyl group;

$R^4$  and  $R^5$  are independently of one another hydrogen,  $C_1$  to  $C_{18}$  alkyl, which is branched or unbranched,  $C_3$  to  $C_6$  cycloalkyl,  $C_2$  to  $C_{18}$  alkenyl, which is branched or unbranched,  $C_3$  to  $C_6$  cycloalkenyl,  $C_6$  to  $C_{12}$  aryl, which is optionally substituted by alkyl substituents or aryl substituents; or salts, anhydrides, esters of compounds of the formula I, with the exception of (meth)acrylic acid or salts thereof, as component Ab1;

and

- ab2) ~~optionally~~ 0.1 to 50% by weight of monomers containing groups containing ~~phosphoric and/or~~ phosphonic acid or salts thereof, as component Ab2, and polymerizable with the monomers specified under aa) and ac), and also with component Ab1;
- ac) 0 to 30% by weight of further comonomers polymerizable with the monomers specified under aa) and ab1), and ab2) as component Ac.

- 39. (Previously Presented) A passivating layer according to claim 38, whose thickness is  $\leq 3 \mu\text{m}$ .
- 40. (Canceled)
- 41. (Currently Amended) A process for forming a passivating layer on a metal surface, wherein the metal surface is contacted with a composition for treating metal surfaces, comprising
  - a) at least one copolymer as component A, synthesized from
    - aa) 50 to 99.9% by weight of (meth)acrylic acid or salts thereof as component Aa;
    - ab1) 0.1 to 50% by weight of a carboxylate-containing monomer of the formula I



in which the symbols have the following definitions:

n is 0 to 10,

R<sup>1</sup>, R<sup>2</sup>, and R<sup>3</sup> independently of one another are hydrogen, C<sub>1</sub> to C<sub>18</sub> alkyl, which is branched or unbranched, C<sub>3</sub> to C<sub>6</sub> cycloalkyl, C<sub>2</sub> to C<sub>18</sub> alkenyl, which is branched or unbranched, C<sub>3</sub> to C<sub>6</sub> cycloalkenyl, C<sub>6</sub> to C<sub>12</sub> aryl, which is unsubstituted or substituted by alkyl substituents or aryl substituents, R<sup>1</sup>, R<sup>2</sup> and/or R<sup>3</sup> are optionally substituted by at least one carboxyl group, or are a carboxyl group;

R<sup>4</sup> and R<sup>5</sup> are independently of one another hydrogen, C<sub>1</sub> to C<sub>18</sub> alkyl, which is branched or unbranched, C<sub>3</sub> to C<sub>6</sub> cycloalkyl, C<sub>2</sub> to C<sub>18</sub> alkenyl, which is branched or unbranched, C<sub>3</sub> to C<sub>6</sub> cycloalkenyl, C<sub>6</sub> to C<sub>12</sub> aryl, which is optionally substituted by alkyl substituents or aryl substituents; or salts, anhydrides, esters of compounds of the formula I, with the exception of (meth)acrylic acid or salts thereof, as component Ab1;

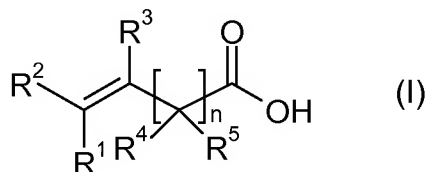
and

- ab2) ~~optionally~~ 0.1 to 50% by weight of monomers containing groups containing phosphoric and/or phosphonic acid or salts thereof, as component Ab2, and polymerizable with the monomers specified under aa) and ac), and also with component Ab1;
- ac) 0 to 30% by weight of further comonomers polymerizable with the monomers specified under aa), ab1) and ab2), as component Ac;

- b) water or another solvent which dissolves, disperses, suspends or emulsifies the copolymer (component A), as component B;
  - c) optionally surface-active additives, dispersants, suspension agents and/or emulsifiers as component C, and
- at least one acid or one alkali metal or alkaline earth metal salt of said acid selected from the group consisting of phosphoric acid, sulfuric acid, sulfonic acids, formic acid, acetic acid, nitric acid, hydrofluoric acid, and hydrochloric acid, as component F.
42. (Previously Presented) A process according to claim 41, wherein said contacting is effected by spraying, rolling or dipping methods.
43. (Previously Presented) A system on a metal surface comprising a passivating layer X according to claim 38 and one or more further coating films Y.
44. (Previously Presented) A process of forming a coating system comprising a passivating layer X and one or more further coating films Y, comprising the steps of:
- forming a passivating layer X by a process according to claim 41;
  - coating the passivating layer with film Y.
45. (Currently Amended) A passivating layer on a metal surface, obtained by contacting the metal surface with a composition comprising a copolymer synthesized from
- aa) 50 to 99.9% by weight of (meth)acrylic acid as component Aa;
  - ab1) 0.1 to 50% by weight of maleic anhydride; and
  - ab2) ~~optionally~~ 0.1 to 50% by weight of vinylphosphonic acid.

46. (Previously Presented) A passivating layer according to claim 45, whose thickness is  $\leq 3 \mu\text{m}$ .
47. (Canceled)
48. (Currently Amended) A process for forming a passivating layer on a metal surface, wherein the metal surface is contacted with a composition comprising
- a) at least one copolymer as component A, synthesized from
    - aa) 50 to 99.9% by weight of (meth)acrylic acid or salts thereof as component Aa;
    - ab1) 0.1 to 50% by weight of maleic anhydride; and
    - ab2) ~~optionally~~ 0.1 to 50% by weight of vinylphosphonic acid as component Ab2;
  - b) water or another solvent which dissolves, disperses, suspends or emulsifies the copolymer (component A), as component B;
  - c) optionally surface-active additives, dispersants, suspension agents and/or emulsifiers as component C, and
- at least one acid or one alkali metal or alkaline earth metal salt of said acid selected from the group consisting of phosphoric acid, sulfuric acid, sulfonic acids, formic acid, acetic acid, nitric acid, hydrofluoric acid, and hydrochloric acid, as component F.
49. (Previously Presented) A process according to claim 48, wherein said contacting is effected by spraying, rolling or dipping methods.
50. (Previously Presented) A system on a metal surface comprising a passivating layer X according to claim 45 and one or more further coating films Y.

51. (Previously Presented) A process of forming a coating system comprising a passivating layer X and one or more further coating films Y, comprising the steps of:
- forming a passivating layer X by a process according to claim 48; and
  - coating the passivating layer with film Y.
52. (Currently Amended) A composition for treating metal surfaces, comprising
- a) at least one copolymer as component A, synthesized from
    - aa) 50 to 99.9% by weight of (meth)acrylic acid or salts thereof as component Aa;
    - ab1) 0.1 to 50% by weight of a carboxylate-containing monomer of the formula I



in which the symbols have the following definitions:

n is 0 to 10,

R<sup>1</sup>, R<sup>2</sup>, and R<sup>3</sup> independently of one another are hydrogen, C<sub>1</sub> to C<sub>18</sub> alkyl, which is branched or unbranched, C<sub>3</sub> to C<sub>6</sub> cycloalkyl, C<sub>2</sub> to C<sub>18</sub> alkenyl, which is branched or unbranched, C<sub>3</sub> to C<sub>6</sub> cycloalkenyl, C<sub>6</sub> to C<sub>12</sub> aryl, which is unsubstituted or substituted by alkyl substituents or aryl substituents, R<sup>1</sup>, R<sup>2</sup> and/or R<sup>3</sup> are optionally substituted by at least one carboxyl group, or are a carboxyl group;

R<sup>4</sup> and R<sup>5</sup> are independently of one another hydrogen, C<sub>1</sub> to C<sub>18</sub> alkyl, which is branched or unbranched, C<sub>3</sub> to C<sub>6</sub>

cycloalkyl, C<sub>2</sub> to C<sub>18</sub> alkenyl, which is branched or unbranched, C<sub>3</sub> to C<sub>6</sub> cycloalkenyl, C<sub>6</sub> to C<sub>12</sub> aryl, which is optionally substituted by alkyl substituents or aryl substituents; or salts, anhydrides, esters of compounds of the formula I, with the exception of (meth)acrylic acid or salts thereof, as component Ab1;

and

ab2) ~~optionally~~ 0.1 to 50% by weight of monomers containing groups containing ~~phosphoric and/or~~ phosphonic acid or salts thereof, as component Ab2, and polymerizable with the monomers specified under aa) and ac), and also with component Ab1;

ac) 0 to 30% by weight of further comonomers polymerizable with the monomers specified under aa) ab1) and ab2), as component Ac;

b) water or another solvent which dissolves, disperses, suspends or emulsifies the copolymer (component A), as component B;

c) optionally surface-active additives, dispersants, suspension agents and/or emulsifiers as component C,

at least one acid or one alkali metal or alkaline earth metal salt of said acid selected from the group consisting of phosphoric acid, sulfuric acid, sulfonic acids, formic acid, acetic acid, nitric acid, hydrofluoric acid, and hydrochloric acid, as component F,

d) at least one nitrogen base as Component D, wherein the at least one nitrogen base is at least one tertiary alkaline amine.

53. (Previously Presented) A composition according to claim 52, wherein the at least one tertiary alkaline amine is triethanolamine, 3-dimethyl-aminopropylamine and/or imidazole.

**DIETSCHE et al**  
**Serial No. 10/509,891**  
July 20, 2009

54. (Cancelled)

55. (Cancelled)